

Paragraphs 2 and 3 reject claims 1-5 "under the judicially created doctrine of obviousness-type double patenting..." In response, a terminal disclaimer, in compliance with 37 C.F.R. 1.321(c) is submitted with this Amendment. The Bryan et al U.S. Patent 5,674,296 is commonly owned with the captioned application.

In Paragraphs 4 and 5, claims 1 and 2 are rejected as anticipated by Frey et al U.S. Patent 4,932,969. In Paragraph 7, claims 3-5 are rejected as obvious and unpatentable under Frey et al '969 in view of "Bainville et al", presumably Bainville et al U.S. Patent 5,674,294.

To distinguish Applicants' invention over the prior art, claim 1 has been amended. First, claim 1 now calls for **relatively rigid, unreticulated** concaval-convex elements. Frey et al clearly teaches "elements 4, 5 which are formed as bearing shells consisting of multiple layers of wire mesh,..." Wire mesh or like open cell elements are "reticulated" elements. See Webster's new Dictionary and Thesaurus, Concise Edition, 1990, page 466. In contrast, Applicants' invention provides two opposed concaval-convex elements which are not reticulated. See Figs. 3, 4, 6, 10, 13 and 14. These elements are, "relatively rigid, unreticulated elements. . .of predetermined convexity, as now claimed."

Frey et al '969 discloses "anchoring elements 4, 5" which are relatively flat, and Bainville et al '294 discloses "cups" 9, 10 which are also relatively flat. (It is respectfully submitted that the '294 term "cup" is something of a misnomer. Bainville's elements 9, 10 are very flat; they have the concavity and convexity normally associated with neither a cup, nor even a saucer, but a plate.)


Surely the lateral dislodgement or extrusion of the mediate resilient elements is a potential problem in both Frey et al '969 and Bainville et al '294. To deal with this problem, Frey et al '969 provides "a circumferentially disposed reenforcing means 11 to prevent excessive expansion of the (resilient) body 6 in a radial direction under compressive stresses or undesired radial turning of the body 6." Column 3, lines 11-15. Similarly, Bainville et al '294 provides metal rings 15 encased in a sealing member 14. "These annular means are radially rigid and ensure that there is no radial expansion of the materials of the cushion outside the volume defined by the cups 9 and 10. These annular means ensure an identical geometry of the prosthesis, no matter what deformations are suffered by the cushion 11. Therefore, said annular means constitute an anti-expulsion system with respect to the medullary canal." Column 4, lines 45-53.

In patentable contrast, Applicants' device needs no such exterior radial or lateral restraint. Instead, as now recited in claim 1, "the **concavity** of the (concaval-convex) element inner surfaces (itself) being sufficient to retain the rounded resilient body between the concaval-convex elements." (Emphasis supplied.) This arrangement is clearly shown in Figs. 3, 6 and 10 in the application. Applicants' seal member 110 surrounding the resilient body 20 is provided simply to discourage and prohibit migration of fluids between the endoprosthesis 18 and adjacent parts of the anatomy.

Thus, it is clear that Applicants teach a novel and patentable structural arrangement, as now clearly recited in claim 1. The cited patents nowhere suggest the claimed structure; indeed, it may be said that the cited patents teach away from Applicants' claimed structure. Accordingly, claim 1 is now believed allowable.

Since all the rejections have been overcome and since the application appears otherwise in condition for allowance, an early action to that effect is earnestly solicited.


Respectfully submitted,


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I hereby certify that this correspondence is being deposited with the United States Postal Service as First Class Mail in an envelope addressed to: Assistant Commissioner for Patents, Washington, D.C. 20231 on September 3, 1998.


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